

The Great Spirit created Man and Woman in his own image. In doing so, both were created as equals. Both depending on each other in order to survive. Great respect was shown for each other in doing so, happiness and contentment was achieved then, as it should be now.

The connecting of the Hair makes them one person for happiness or contentment cannot be achieved without each other.

The Canyons are represented by the purples in the middle ground, where the people were created. These canyons are Sacred, and should be so treated at all times.

The Reservation is pictured to represent the land that is ours, treat it well.



The Reservation is our heritage and the heritage of our children yet unborn. Be good to our land and it will continue to be good to us.

The Sun is the symbol of life, without it nothing is possible - plants don't grow - there will be no life - nothing. The Sun also represents the dawn of the Hualapai people. Through hard work, determination and education, everything is possible and we are assured bigger and brighter days ahead.

The Tracks in the middle represent the coyote and other animals which were here before us.

The Green around the symbol are pine trees, representing our name Hualapai - PEOPLE OF THE TALL PINES.

HUALAPAI NATION OFFICE OF THE CHAIRWOMAN

Louise Benson
Chairwoman

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Carrie Imus
Vice Chairwoman

April 16, 2003

Mr. Sam Spiller
U.S. Fish and Wildlife Service
2321 W. Royal Palm Rd., Suite 103
Phoenix, AZ 85021

Dear Mr. Spiller,

This letter is to establish the Hualapai Tribe's position regarding the use of off-site rearing and hatchery facilities for protection and recovery of the endangered humpback chub (*Gila cypha*) in Grand Canyon. We feel that it is imperative that off-site facilities such as hatcheries, rearing facilities and refugia be used as tools in the protection and recovery of humpback chub and that now is the time to begin to develop these programs as the status of humpback chub in Grand Canyon has declined to a critical level in recent years.

Evidence for the critical nature of population levels of the chub in Grand Canyon come in the form of empirical data and legal maneuvering. All estimates of humpback chub in Grand Canyon show a precipitous decline beginning around 1990 and continuing to today. Most estimates put the population level somewhere around 1,000-2,000 adult individuals. This population size is too vulnerable to potential catastrophic impacts from an unknown myriad of sources such as disease, predation, poisoning and flooding. More evidence of the critical population level of the chub comes from notice of a pending lawsuit from Grand Canyon Trust against the U.S. Fish and Wildlife Service charging that the Service is not doing enough to protect and recover this species. Together, these data point to a serious situation for humpback chub in Grand Canyon.

Off-site hatcheries, rearing facilities and refugia can greatly assist in the protection and population enhancement of this species in many ways. First, genetic studies are crucial to many future management actions and having accessible fish would greatly facilitate those studies.

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Second, there is a great deal to learn about off-site rearing and propagation of humpback chub that should be addressed now before we find ourselves in a more critical situation where there may not be time to evaluate appropriate techniques. Third, fish need to be secured while studies of potential locations for the establishment of a second spawning population are completed, and finally, the potential for off-site rearing and future supplementation into the LCR population need to be evaluated. We need to secure fish now, while they are available while these evaluations proceed. There is a point where the genetic diversity and population numbers become too low to assure continued existence of this species in Grand Canyon.

Others believe that the focus of recovery activities should be on improving habitat in Grand Canyon for the chub and in reducing the level of predation. We agree that these are important activities, but that these experiments may take many years before their impacts are truly understood. For example, it has been stated that we should wait to see how implementation of a Temperature Control Device (TCD) can improve the habitat and reproductive success of chubs in Grand Canyon. Construction of a TCD is at least several years away and understanding the effects of the TCD are another several years beyond that. We argue that we must have the flexibility that off-site rearing affords us now before that tool is unavailable to the Glen Canyon Program, the Fish and Wildlife Service and the State of Arizona.

We agree that it is probably not the main responsibility of the Glen Canyon Program or the Grand Canyon Monitoring and Research Center to fund the assessment of off-site hatchery, rearing and refugia programs, but we do feel that, as a group, we should be a proponent of these activities and provide scientific input where possible. The status of humpback chub in Grand Canyon is one of the most pressing issues to the program, and aspects of chub biology were listed as the most important information needs by the Glen Canyon Dam Technical Workgroup.

The Hualapai Tribe is dedicated to assisting in the recovery of endangered fish in the southwestern U.S.. The Hualapai Tribe, the U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, the U.S. Bureau of Indian Affairs and others have invested significant resources to the construction and operation of an endangered fish rearing facility on the Hualapai Reservation. We are currently rearing the endangered razorback sucker (*Xyrauchen texanus*) at our facility at no charge to the Fish and Wildlife Service. These fish have grown over 200 mm in the past four years. We believe we can help develop a rearing program for humpback chub and would gladly welcome the opportunity to do so. We view the chub as a Trust Resource, and as such, wish to assist in the recovery of this species in any way we can.

In closing, we believe that off-site hatcheries, rearing facilities and refugia are crucial to the protection and recovery of humpback chub in Grand Canyon and hope that the Service supports the immediate evaluation and implementation of these programs. We do support full evaluation of these programs to ensure that we have the best chance for successful off-site propagation and production of this important species.

We appreciate the opportunity to voice our concerns regarding humpback chub in Grand Canyon and look forward to future discussions regarding these issues. Please contact my office or Mr. Don Bay, Director of the Hualapai Department of Natural Resources if we can provide additional information.

Sincerely,

Louise Benson

Louise Benson, Chairwoman
Hualapai Tribe